Appendix F

Ammunition Identification

Ammunition is identified by markings and color-coding on the items themselves, the containers, and the packing boxes. The markings and standard nomenclature of each item, together with the lot number, FSC, NSN, DODIC, and DODAC, completely identify each item and are used to maintain accountable records. This appendix gives a basic explanation of markings and color-coding. Because color-coding is a more ready means of identification, it is given greater emphasis here.

MARKINGS

F-1. Markings stenciled or stamped on munitions items include all information needed for complete identification. Components in which all explosive, incendiary, or toxic materials have been simulated by substitution of inert material are identified by impressed INERT markings. Components in which all explosive, incendiary, or toxic materials have been omitted are identified by stamped EMPTY markings.

AMMUNITION LOT NUMBER

F-2. Each item of ammunition is assigned a complete round or item lot number when it is manufactured or is at the LAP plant. See MIL-STD 1168-A for a description of the current system. See MIL-STD 1168 for a discussion of the old lot numbering system. Figure F-1 breaks down a typical ammunition lot number showing both the new and old systems.

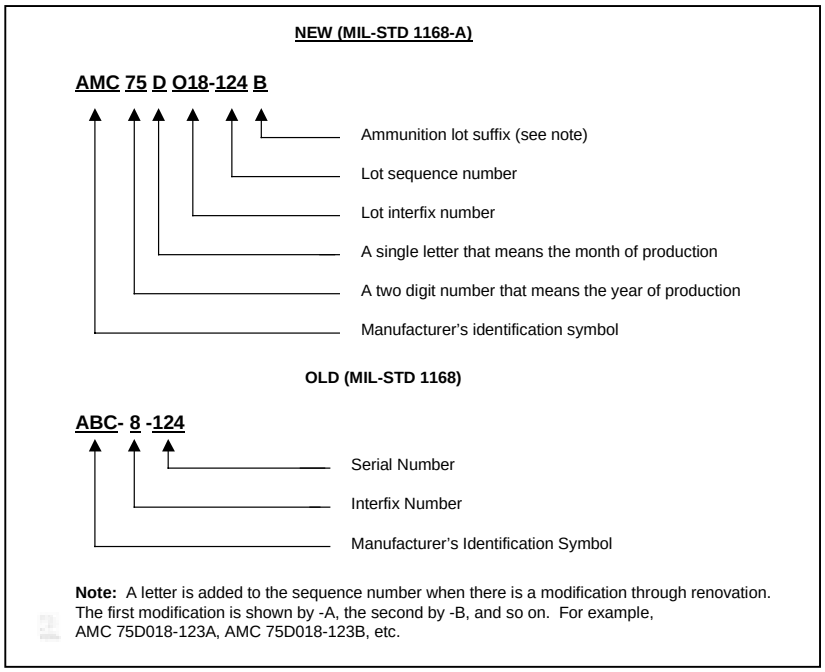

Figure F-1. Typical Lot Number System

CONVENTIONAL AMMUNITION FEDERAL SUPPLY CLASSES

F-3. Conventional ammunition is FSG 13. Within this group, ammunition is further broken down by two more numbers that identify the general type or family in which the item falls. Table F-1 lists the FSCs.

Table F-1. FSC Group 13 Classes

FSC Group 13 (classes)	Ammunition and Explosive Type or Family
1305	Ammunition, through 30mm
1310	Ammunition, over 30mm up to 75mm
1315	Ammunition 75mm through 125mm
1320	Ammunition, over 125mm
1330	Grenades
1340	Rockets and rocket ammunition
1345	Land mines
1365	Military chemical agents
1370	Pyrotechnics
1375	Demolition materials
1376	Bulk explosives
1377	Cartridge and propellant actuated devices and components
1390	Fuzes and primers
1395	Miscellaneous ammunition
1398	Specialized ammunition handling and servicing equipment
1410/20/25/27	Guided missiles

Note: There are other FSC groups, but they are for Class V materiel outside the US Army ammunition inventory. (Look in any current copy of the DOD ammunition listing, volumes 1 through 3, for more information.)

CONVENTIONAL AMMUNITION NATIONAL STOCK NUMBERING SYSTEM

F-4. Each complete round or item of conventional ammunition or associated explosive component is identified by its own NSN. The first four numbers of the NSN is the FSC. It is followed by the National Item Identification Number, or NIIN, which consists of a two-number code identifying the country of manufacture and a seven-number item identification. See Figure F-2 below.

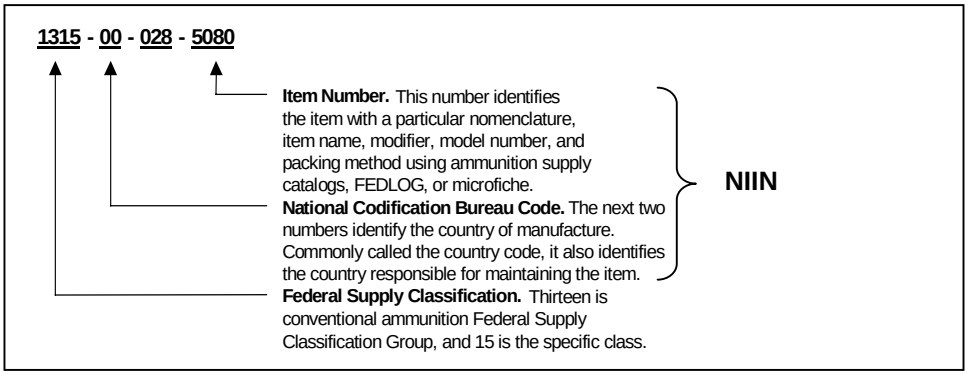

Figure F-2. Example of an NSN

DEPARTMENT OF DEFENSE IDENTIFICATION CODE

F-5. A DODIC is a single letter and three numbers or, in the case of small guided missiles, two letters and two numbers. It is attached at the end of all NSNs to denote interchangeability of the item. Communications between ammunition units often use an ammunition item DODIC. See Figure F-3 for a conventional NSN with DODIC added, demonstrating interchangeability between various model numbers and the designators of an ammunition item.

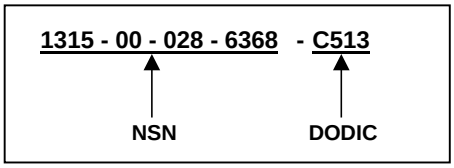

Figure F-3. Sample DODIC

DEPARTMENT OF DEFENSE AMMUNITION CODE

F-6. The DODAC includes the FSC of the ammunition and the DODIC. The code is used on all using unit DD Form 581s, DA Form 3151-Rs, and most ammunition reports. The DODAC is used instead of the DODIC to reduce errors with ammunition transactions. See Figure F-4.

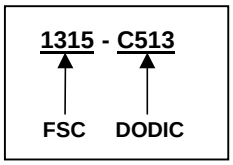

Figure F-4. Example of a DODAC

COLOR CODING

F-7. The main reason ammunition is painted is to protect it from rust. However, the color of the protective coating and markings also makes ammunition easy to identify and provides some camouflage. Ammunition 20mm and larger is color-coded IAW MIL-STD 709C (see Tables F-2 and F-3). Figure F-5 shows typical markings for an artillery round of ammunition.

F-8. Small arms ammunition is not color-coded under MIL-STD 709C. Either the small arms projectiles or the bullet tips are painted a distinctive color so they can be identified quickly. Figures F-6 through F-8, pages F-7 through F-9, show the color codes for types of small arms ammunition up to and including.50 caliber. For more information, see TM 9-1300-200. Significant features of the current color-coding standard are as follows:

- **Olive drab.** With yellow markings, OD indicates an HE round. However, OD is also being used as a basic color for certain new rounds such as ICMs, the flechette antipersonnel round, and some new illumination rounds for specific field artillery weapons.
- **Overpacking.** Ammunition overpacked in color-coded bombs, in unit dispensers, or in warheads, must not be color-coded.

- **Camouflage.** Ammunition containing toxic chemical, incapacitating, or riot control chemical agents must never be camouflaged by painting.
- **Standard DOD Ammunition Color Code.** MIL-STD 709C contains the standard ammunition color code for 20mm and larger ammunition. Be aware, though, that there is still ammunition coded as specified by MIL-STD 709-B and MIL-STD 709-A. If this is the case, see the appropriate MIL-STD or TM 9-1300-200.

Table F-2. Ammunition Color Code, MIL-STD 709C

Color[1,2]	Fed Std No 595	Interpretation
Yellow	33538	Identifies HE ammunition or indicates presence of HE.
Brown	30117 or 30140	Identifies low-explosive items of components or indicates low explosive. Normally brown band around the item.
Gray[3,4]	36231	Identifies chemical ammunition containing toxic chemical, incapacitating or riot control agent. Used as basic color.
Dark red	31136	Identifies riot control agent filler.
Dark green[3]	34108	Identifies toxic chemical agent filler. Used for markings and bands.
Violet	17100	Identifies incapacitating agent filler. Used for markings or bands.
Black[3,5]	37038	Identifies armor-defeating ammunition or indicates armor-defeating capability.
Silver/aluminum	17178	Identifies countermeasure ammunition (e.g., radar echo, leaflets).
Light green[3]	34558 or 34449	Identifies screening or marking smoke ammunition.
Light red	31158	Identifies incendiary ammunition or indicates highly flammable material (liquids, jellies, solids) that produce damage by fire.
White[3,5,6]	37875	Identifies illuminating ammunition or ammunition that produces a colored light.
Light Blue	35109	Identifies practice ammunition.
Orange	32246	May be used to identify ammunition used for tracking and recovery in tests or training operations (e.g., underwater mines and torpedoes).
Bronze, gold, brass	17043	Identifies completely inert ammunition for use in activities such as assembly, testing, handling, drills, etc., not to be delivered in a delivery system.

Footnote. The following have no color-coding significance:

1. Colors specifically applied to identify the color of smoke ammunition or pyrotechnics.
2. Unpainted or natural color ammunition.
3. Gray black, green, or white on underwater ammunition.
4. Gray on air-launched missiles.
5. Black or white when used for lettering or special marking.
6. White on guided missiles, dispensers, and rocket launchers.

Table F-3. Application of Color Codes for Particular Ammunition Items, MIL-STD 709C

Ammunition	Colors		
	Body	Markings [1]	Bands
HE, except 20mm	Olive drab	Yellow	Yellow [2,3,4,5]
HE, 20mm	Yellow	Black	None
Explosive binary munitions	Olive drab	Yellow	Broken yellow[6]
HEP	Olive drab	Yellow	Black
HEAT	Black	Yellow	None
Antipersonnel and antitank mines	Olive drab	Yellow	Yellow[3]
Incendiary	Light red	Black	None
HEI	Yellow	Black	Light red
API	Black	White	Light red
AP			
With bursting charge	Black	Yellow	None
Without bursting charge	Black	White	None
Canister	Olive drab	White	None
Flechette-loaded	Olive drab	White	White[7] Yellow[8]
Chemical			
Filled with a toxic chemical binary nerve agent	Gray	Dark Green	One broken dark green[9,10,11]
Illuminating			
Separate loading	Olive drab	White	White
Fixed or semifixed	White	Black	None
Practice			
With low explosive to indicate functioning			Brown
With high explosive to indicate functioning			Yellow
Without explosive to indicate functioning			None
Screening or marking			
Smoke ammunition			
Filled with other than WP	Light green	Black	None
Filled with WP	Light green	Light red	Yellow[9] Light red[12]
Inert ammunition not designed to be delivered in a delivery system	Bronze	Black	None
Chemical			
Filled with a riot control agent	Gray	Red	One red[9]
Filled with an incapacitating agent	Gray	Violet	One violet[9]
Filled with a toxic chemical agent other than binary agents	Gray	Dark Green	One dark green[9]
Filled with a toxic chemical binary nerve agent	Gray	Dark Green	One broken dark green [9,10]

Table F-3. Application of Color Codes for Particular Ammunition Items, MIL-STD 709C (Continued)

Footnotes:

1. Color of the letters and figures normally used for the main identification.
2. Circumferential band of yellow diamond-shaped figures on semifixed and separate-loading improved conventional munitions.
3. Circumferential band of yellow triangular-shaped figures on mass scatterable mine and loaded semifixed and separate-loading ammunition.
4. Separate-loading ammunition for shipboard use has a circumferential yellow band besides yellow markings.
5. Bombs have one yellow band except thermally protected bombs, which have two yellow bands besides yellow markings.
6. Circumferential broken yellow band (1/2-inch segments with 1/2-inch gaps) on explosive binary munitions.
7. Circumferential band of white diamond-shaped figures on ammunition containing flechettes.
8. Yellow band put on when the ammunition contains explosives used to fracture the projectile.
9. Yellow band put on to indicate HE burster.
10. Toxic chemical agent ammunition containing a binary nerve agent filling shown by a broken dark green band (1/2-inch segments separated by 1/2-inch spaces).
11. Both color applications are standard. However, for land ammunition use, separate-loading ammunition is olive drab for overall body color with a white band and main identification details marked white. Fixed and semifixed ammunition is white for overall body color with main identification details in black.
12. Separate-loading ammunition for shipboard use has black markings and a light red band.

Figure F-5. Typical Artillery Markings

Type		Characteristics
Ball		None
Ball heavy cartridge, for M16A2 and SAW		Green
Rifle grenade		Red rose petal crimp
Tracer		Orange for M856 cartridge for M16A2 rifle; red for M196 cartridge for M16A1
High-pressure test (HPT)		Plain tip/silver cartridge case
Dummy		Copper colored cartridge with fluted case, no primer
Blank		Rose petal crimped case with groove around cartridge case, no primer composition and no bullet
Dummy, inert-loaded		Total cartridge black

Notes:

1. Heavy ball cartridge for the M16A2 rifle is not designed to fire accurately in the M16A1 rifle.
2. Light ball cartridge is authorized only for rifle M16A1.
3. Rifle grenade cartridge may have various colors applied to the rose-petal crimp.
4. HPT cartridge has "HPI" embossed on head.
5. The only clear feature of the blank cartridge is the groove.

Figure F-6. 5.56mm Cartridges

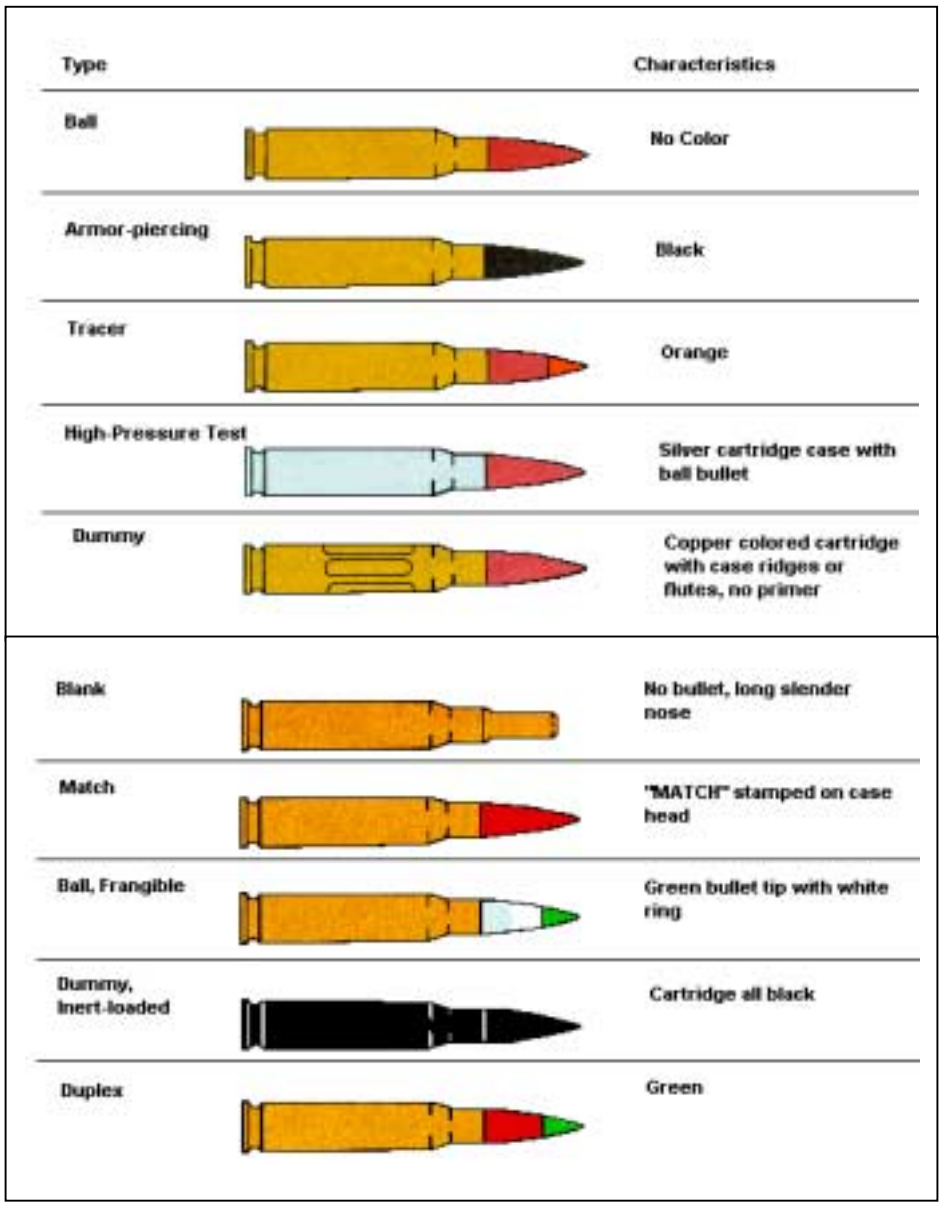

Figure F-7. 7.62mm Cartridges

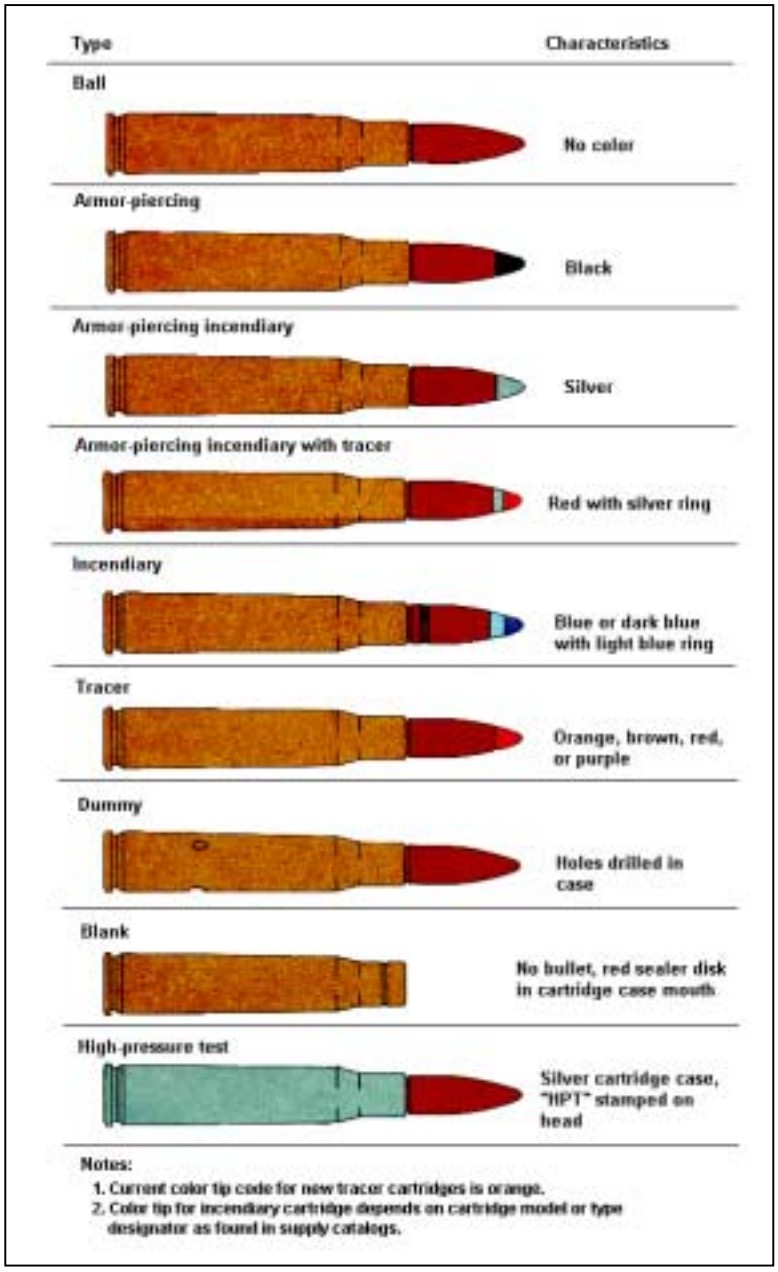

Figure F-8. Caliber .50 Cartridges